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(FILE 'HOME' ENTERED AT 00:36:25 ON 25 JAN 2003)

FILE 'REGISTRY' ENTERED AT 00:36:34 ON 25 JAN 2003

L1 STRUCTURE UPLOADED

L2 13 S L1 SSS SAM

L3 6027 S L1 SSS FULL

FILE 'STNGUIDE' ENTERED AT 00:37:52 ON 25 JAN 2003

FILE 'REGISTRY' ENTERED AT 00:42:19 ON 25 JAN 2003

L4 STRUCTURE UPLOADED

L5 11 S L4 SSS SAM

L6 5427 S L5 SSS FULL

FILE 'CAPLUS' ENTERED AT 00:43:10 ON 25 JAN 2003

L7 3 S L6 AND VASCULAR? AND (HYPER(2A)TENS? OR HYPERTENSION OR SYSTO

L8 5 S L6 AND (HYPER(2A) TENS? OR HYPERTENSION OR SYSTOL?)

FILE 'STNGUIDE' ENTERED AT 00:46:13 ON 25 JAN 2003

FILE 'REGISTRY' ENTERED AT 00:58:41 ON 25 JAN 2003

L9 STRUCTURE UPLOADED

L10 4 S L9 SSS SAM

L11 1422 S L9 SSS FULL

FILE 'CAPLUS' ENTERED AT 01:02:02 ON 25 JAN 2003

L12 2 S L11 AND (HYPER(2A) TENS? OR HYPERTENSION OR SYSTOL?)

	(1,111	INTERNET AT 00.30.23 ON 23 OTH 2003
L1 L2 L3	FILE	'REGISTRY' ENTERED AT 00:36:34 ON 25 JAN 2003 STRUCTURE UPLOADED 13 S L1 SSS SAM 6027 S L1 SSS FULL
	FILE	'STNGUIDE' ENTERED AT 00:37:52 ON 25 JAN 2003
L4 L5 L6	FILE	'REGISTRY' ENTERED AT 00:42:19 ON 25 JAN 2003 STRUCTURE UPLOADED 11 S L4 SSS SAM 5427 S L5 SSS FULL
L7 L8	FILE	'CAPLUS' ENTERED AT 00:43:10 ON 25 JAN 2003 3 S L6 AND VASCULAR? AND (HYPER(2A)TENS? OR HYPERTENSION OR SYSTOTION OF SYST
	FILE	'STNGUIDE' ENTERED AT 00:46:13 ON 25 JAN 2003

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=> s 16 and vascular? and (hyper(2a)tens? or hypertension or systol?)
          1850 L6
        111752 VASCULAR?
         11661 HYPER
        386823 TENS?
            69 HYPER (2A) TENS?
         59195 HYPERTENSION
         17583 SYSTOL?
             3 L6 AND VASCULAR? AND (HYPER(2A)TENS? OR HYPERTENSION OR SYSTOL?)
L7
=> s 16 and (hyper(2a)tens? or hypertension or systol?)
          1850 L6
         11661 HYPER
        386823 TENS?
            69 HYPER (2A) TENS?
         59195 HYPERTENSION
         17583 SYSTOL?
             5 L6 AND (HYPER(2A) TENS? OR HYPERTENSION OR SYSTOL?)
1.8
=> d 18 abs ibib kwic hitstr 1-5
     ANSWER 1 OF 5 CAPLUS COPYRIGHT 2003 ACS
L8
GI
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$$\begin{array}{c|c} \text{Et} & \text{NH.HBr} \\ \text{Et-CHCH}_2\text{CH}_2 & \text{N} & \text{CH}_2\text{CO} \\ & & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & \\ & & \\ & & \\ & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & \\ & & \\ & & \\ & & \\ & \\ & & \\ & \\ & & \\ & \\ & \\ & \\ & \\ & & \\$$

The 2-iminoimidazole derivs. represented by the formula (I) or salts thereof [wherein R1, R2, R3 = H, cyano, halo, each (un)substituted C1-6 alkyl, alkylidene, C2-6 alkenyl, C2-6 alkynyl, acyl, CO2H, CONH2, C1-6 alkoxycarbonyl, C1-6 alkylaminocarbonyl, HO, C1-6 alkoxy, etc.; or R1 and R2 are linked together to form a 5-membered ring; R6 = H, C1-6 alkyl, acyl, CONH2, HO, C1-6 alkoxy, C1-6 alkyloxycarbonyloxy, C3-8 cycloalkyl, optionally acyloxy-substituted C1-6 alkyloxycarbonyl, etc.; Y1 = a single bond, (CH2)m (wherein m = an integer of 1-3), each (un)substituted CH, CH2, NH, CONH, or SO2NH, etc.; Y2 = a single bond, O, (CH2)m (m = same as above), CO, SO, SO2, each (un)substituted CH, CH2, or C(:NOH); Ar = H,

(un) substituted Ph or a 5- to 14-membered arom. heterocyclyl] are prepd. These compds. are antagonists of thrombin receptors, in particular thrombin PAR1 receptor, platelet aggregation inhibitors, or proliferation inhibitors of smooth muscle cell, endothelial cell, fibroblast, kidney cell, osteosarcoma cell, muscle cell, cancer cell and/or glial cell. They are remedies and/or preventives of thrombosis, vascular restenosis, deep venous thrombosis, lung embolism, cerebral infarction, heart disease, disseminated intravascular coagulation syndrome, hypertension, inflammation, rheumatism, asthma, glomerulonephritis, osteoporosis, neuropathy and/or malignant tumor. Thus, a soln. of 305 mg 1-(3-ethylpentyl)-1H-2-imidazoleamine and 660 mg 2-bromo-1-[3,5-di(tertbutyl)-4-hydroxyphenyl]-1-ethanone in 20 mL ethanol was heated at 60.degree. for 3 h to give 700 mg 1-[3,5-di(tert-butyl)-4-hydroxyphenyl]-2-[3-(3-ethylpentyl)-2-imino-2,3-dihydroimidazol-1-yl]ethanone hydrobromide (II). II showed IC50 of 0.074 .mu.M for inhibiting the [3H]Ala-(4-fluoro)Phe-Arg-(cyclohexyl)Ala-(homo)Arg-NH2 binding on human platelet membrane in a thrombin receptor binding assay, that of 0.54 .mu.M for inhibiting the thrombin-induced human platelet aggregation, and that of 0.3 .mu.M for inhibiting the proliferation of rat aortic smooth muscle cell.

ACCESSION NUMBER: 2002:849599 CAPLUS

DOCUMENT NUMBER: 137:353022

TITLE: Preparation of 2-iminoimidazole derivatives as

thrombin receptor antagonists

INVENTOR(S): Suzuki, Shuichi; Kotake, Makoto; Miyamoto, Mitsuaki;

Kawahara, Tetsuya; Kajiwara, Akiharu; Hishinuma, Ieharu; Okano, Kazuo; Miyazawa, Syuhei; Clark, Richard; Ozaki, Fumihiro; Sato, Nobuaki; Shinoda, Masanobu; Kamada, Atsushi; Tsukada, Itaru; Matsuura, Fumiyoshi; Naoe, Yoshimitsu; Terauchi, Taro; Oohashi, Yoshiaki; Ito, Osamu; Tanaka, Hiroshi; Musya, Takashi; Kogushi, Motoji; Kawada, Tsutomu; Matsuoka, Toshiyuki; Kobayashi, Hiroko; Chiba, Kenichi; Kimura, Akifumi;

Ono, Naoto

PATENT ASSIGNEE(S): Eisai Co., Ltd., Japan SOURCE: PCT Int. Appl., 171 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

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APPLICATION NO. DATE
    PATENT NO.
                    KIND DATE
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                                          ______
    WO 2002088092
                     A1
                           20021107
                                         WO 2002-JP3950 20020419
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
            UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
        TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
            CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
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                                                       A 20010419
A 20010905
                                       JP 2001-121829
PRIORITY APPLN. INFO.:
                                       JP 2001-269422
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OTHER SOURCE(S): MARPAT 137:353022

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. . remedies and/or preventives of thrombosis, vascular restenosis,
AΒ
     deep venous thrombosis, lung embolism, cerebral infarction, heart disease,
     disseminated intravascular coagulation syndrome, hypertension,
     inflammation, rheumatism, asthma, glomerulonephritis, osteoporosis,
     neuropathy and/or malignant tumor. Thus, a soln. of 305 mg
     1-(3-ethylpentyl)-1H-2-imidazoleamine and 660 mg 2-bromo-1-[3,5-di(tert-
     butyl)-4-hydroxyphenyl]-1-ethanone.
              cerebral infarction prevention treatment iminoimidazole prepn;
ST
     heart disease prevention treatment iminoimidazole prepn; disseminated
     intravascular coagulation syndrome prevention treatment iminoimidazole
     prepn; hypertension prevention treatment iminoimidazole prepn;
     inflammation prevention treatment iminoimidazole prepn; rheumatism
     prevention treatment iminoimidazole prepn; asthma prevention treatment
     iminoimidazole prepn; glomerulonephritis.
     Anti-inflammatory agents
IT
     Antiasthmatics
     Anticoaqulants
     Antihypertensives
     Antirheumatic agents
     Antitumor agents
     Asthma
     Cardiovascular agents
     Cytotoxic agents
     Heart, disease
     Human
       Hypertension
     Inflammation
     Osteoporosis
     Platelet aggregation inhibitors
     Rheumatic diseases
     Thrombosis
        (prepn. of 2-iminoimidazole derivs. as thrombin receptor antagonists,
        platelet aggregation inhibitors, or cell proliferation inhibitors for
        prevention and/or treatment of diseases)
                                                   474671-19-7P
                                                                  474671-20-0P
IT
     473936-54-8P
                    474671-16-4P
                                   474671-18-6P
                                                   474671-25-5P
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     474671-21-1P
                    474671-22-2P
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                                   474672-00-9P
                                                   474672-01-0P
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474672-49-6P

474672-50-9P

474672-47-4P 474672-48-5P

CN

474672-51-0P 474672-52-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 2-iminoimidazole derivs. as thrombin receptor antagonists, platelet aggregation inhibitors, or cell proliferation inhibitors for prevention and/or treatment of diseases)

IT 474672-47-4P 474672-48-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 2-iminoimidazole derivs. as thrombin receptor antagonists, platelet aggregation inhibitors, or cell proliferation inhibitors for prevention and/or treatment of diseases)

RN 474672-47-4 CAPLUS

1H-Imidazolium, 1-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-3-(phenylmethyl)-, bromide (9CI) (CA INDEX NAME)

Br

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 474672-48-5 CAPLUS

CN 1H-Imidazolium, 1-[[4-(aminosulfonyl)phenyl]methyl]-3-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-, bromide (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

● Br -

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2003 ACS GI

AB The prepn. cyanomethyl substituted thiazoliums and imidazoliums [I; wherein Y = N, S; Z is absent if Y is S, and, if present = (C1-C7)alkyl, vinyl, allyl, arylcarbonyl, amino, etc.; R1, R4, independently = H, alkyl, Ph optionally substituted with one or more halogen, alkyl, di(lower alkyl)amino, or alkoxy groups; R2, R3 = H, acylamino, acyloxyalkyl, alkanoyl, etc.] is described. Thus, 1-methylimidazole and bromoacetonitrile were reacted to give 1-methyl-3-(2-cyanomethylene)imidazolium bromide. The prepd. compds. are useful in improving the elasticity or reducing wrinkles of a skin, treating diabetes or treating/inhibiting/ameliorating discoloration of teeth, adverse sequelae of diabetes, kidney damage, damage to blood vasculature, hypertension, retinopathy, damage to lens proteins, cataracts, peripheral neuropathy, osteoarthritis, damage to cardiovascular tissue due to heart failure, or improving myocardial elasticity, or preventing damage to tissues in the i.p. cavity caused by contact with elevated levels of reducing sugars.

ACCESSION NUMBER:

2002:90030 CAPLUS

DOCUMENT NUMBER:

136:134758

TITLE:

Preparation of cyanomethyl substituted thiazoliums and

imidazoliums and treatments of disorders associated

with protein aging

INVENTOR(S):

Wagle, Dilip; Fang, Sheng Ding

PATENT ASSIGNEE(S):

Alteon, Inc., USA

SOURCE:

PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.				KIND DATE			APPLICATION NO.						DATE				
	WO	2002008210			A1		20020131			W	20	01-U	00	20010713				
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
			GM,	HR,	HU,	ID,	ΙL,	IN,	IS,	JP,	KΕ,	KG,	ΚP,	KR,	KΖ,	LC,	LK,	LR,
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	ΝZ,	PL,	PT,
			RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ΤJ,	TM,	TR,	TT,	TZ,	UA,	ŪĠ,	UZ,
			VN,	YU,	ZA,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM			
		RW:	GH,	GM,	KE,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,
			DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	ΝL,	PT,	SE,	TR,	BF,
			ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG		
_	US 2002068729				A1 20020606			US 2001-905188						20010713				
•	US	S 2002103182			A1 20020801			US 2001-905035						20010713				
US 2002177586 A1 20021128						US 2001-37447						20011231						
PRIORITY APPLN. INFO.:							τ	JS 2	000-3	2182	73P	P	2000	0713				
								Ţ	JS 2	000-2	2594	31P	₽	2000	1229			
									Ţ	JS 2	001-2	2592	42P	P	2001	0102		

US 2001-296435P P 20010606 US 2001-905188 A1 20010713

OTHER SOURCE(S): MARPAT 136:134758

AB . . . of a skin, treating diabetes or treating/inhibiting/ameliorating discoloration of teeth, adverse sequelae of diabetes, kidney damage, damage to blood vasculature, hypertension, retinopathy, damage to lens proteins, cataracts, peripheral neuropathy, osteoarthritis, damage to cardiovascular tissue due to heart failure, or improving myocardial. .

IT 392710-36-0P 392710-37-1P 392710-38-2P 392710-39-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)

(prepn. of cyanomethyl substituted thiazoliums and imidazoliums and treatments of disorders assocd. with protein aging)

IT 392710-36-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of cyanomethyl substituted thiazoliums and imidazoliums and treatments of disorders assocd. with protein aging)

RN 392710-36-0 CAPLUS

CN 1H-Imidazolium, 1-(cyanomethyl)-3-methyl-, bromide (9CI) (CA INDEX NAME)

⊕ Br-

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2003 ACS

3

GΙ

09/905,188

$$Q^{1} = (CH_2)_{n}^{Y}$$

$$R^{10}$$

$$R^{10}$$

$$R^{11}$$

$$Z$$

$$Q^{2} = Y$$

$$R^{10}$$

$$R^{11}$$

Compds. represented by the general formula (I) [wherein Ar1, Ar2, Ar3 = AB aryl or heteroaryl each optionally having substituents selected from cyano, halo, NO2, lower alkyl, halo-lower alkyl, hydroxy-lower alkyl, lower cycloalkyl-lower alkyl, lower alkenyl, lower alkylamino, di-lower alkylamino, lower alkanoylamino, lower alkylsulfonylamino, arylsulfonylamino, HO, lower alkoxy, halo-lower alkoxy, aryloxy, heteroaryloxy, lower alkylthio, CO2H, CHO, lower alkanoyl, lower alkoxycarbonyl, CONH2, lower alkylcarbamoyl, di-lower alkylcarbamoyl, lower alkylsulfonyl, arylsulfonyl, aryl, and heteroaryl; n = 0,1; R1 = lower cycloalkyl, Ar3, Q, Q1, Q2; R1, R2 = H, lower cycloalkyl, lower alkenyl, lower alkyl optionally having substituents selected from halo, lower alkylamino, di-lower alkylamino, lower alkanoylamino, HO, lower alkoxy, CHO, lower alkoxycarbonyl, lower alkylcarbamoyl, and di-lower alkylcarbamoyl; wherein R10 = R11 = H, or R10 and R11 together represents oxo; X, Y = CH2, CH2CH2, NR12 (wherein R12 = H, lower alkyl), O, S; Z = CH, N; with the proviso that when R2 and R3 are simultaneously hydrogen, Ar1, Ar2 and R1 do not simultaneously represent unsubstituted phenyl] or salts or esters thereof are prepd. Theses compds. are useful as therapeutic agents for treating various neuropeptide Y (NPY)-related diseases, for example, circulatory diseases including hypertension , kidney diseases, cardiac diseases, vasospasm, and arteriosclerosis; central nervous system diseases including hyperphagia, depression, anxiety, convulsion, epilepsy, dementia, pain, alc. dependence, and withdrawal symptoms due to abstinence from drugs; metabolic diseases including obesity, diabetes, hormonal disorders, hypercholesterolemia, and hyperlipidemia; sexual dysfunction and reproductive function disorders; digestive diseases including enterokinetic disorders; respiratory diseases; inflammation; or glaucoma. Thus, 46.5 mg 2,4-dicyanopyridine and 24 mg ytterbium trifluoromethanesulfonate were added to a soln. of 100 mq (2S)-1-(4-fluorophenyl)-1-(6-fluoro-3-pyridyl)-1,2-propanediamine in 0.25 mL PhMe and stirred at 100.degree. for 5 h to give 106 mg optically active (5S)-2-(4-cyano-2-pyridyl)-4-(4-fluorophenyl)-4-(6-fluoro-3pyridyl)-5-methyl-2-imidazolidine (II). II in vitro showed IC50 of 1.7 nM for inhibiting the binding of [125I] peptide YY to human NPY receptor. Tablet formulations contg. 2-(3-cyanophenyl)-4,4-bis(4-fluorophenyl)-2imidazolidine were prepd.

ACCESSION NUMBER:

2001:636055 CAPLUS

DOCUMENT NUMBER:

135:211050

TITLE:

Preparation of imidazoline compounds as antagonists of

neuropeptide Y receptor

INVENTOR(S):

Sato, Nagaaki; Okamoto, Osamu; Jitsuoka, Makoto;

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Nagai, Keita; Kanatani, Akio; Ishihara, Akane; Ishii,
                        Yasuyuki; Fukami, Takehiro
                        Banyu Pharmaceutical Co., Ltd., Japan
PATENT ASSIGNEE(S):
                        PCT Int. Appl., 137 pp.
SOURCE:
                        CODEN: PIXXD2
                        Patent
DOCUMENT TYPE:
                        Japanese
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO. KIND DATE
                                         APPLICATION NO. DATE
                                         -----
                     A1
                                    WO 2001-JP1312 20010222
                          20010830
     WO 2001062738
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                                        AU 2001-34128
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                                                       A 20000222
PRIORITY APPLN. INFO.:
                                       JP 2000-45042
                                                      W 20010222
                                       WO 2001-JP1312
                        MARPAT 135:211050
OTHER SOURCE(S):
    . . . prepd. Theses compds. are useful as therapeutic agents for
     treating various neuropeptide Y (NPY)-related diseases, for example,
     circulatory diseases including hypertension, kidney diseases,
     cardiac diseases, vasospasm, and arteriosclerosis; central nervous system
     diseases including hyperphagia, depression, anxiety, convulsion, epilepsy,
     dementia, pain, alc.. . .
     93-60-7, Nicotinic acid methyl ester 98-97-5, Pyrazinecarboxylic acid
IT
     345-92-6, 4,4'-Difluorobenzophenone 352-13-6, 4-Fluorophenylmagnesium
              766-11-0, 5-Bromo-2-fluoropyridine 1493-23-8,
     4-Fluorophenyllithium 1877-72-1, 3-Cyanobenzoic acid 7471-86-5,
     Benzimidic acid methyl ester 7677-24-9, Trimethylsilyl cyanide
     13368-86-0, 1,2,5-Thiadiazole-3-carboxylic acid 29181-50-8,
     2,4-Dicyanopyridine 56133-37-0, 4-Isothiazolecarboxylic acid methyl
     ester 60573-68-4, 3-Pyridyllithium 74617-55-3
                                                       95407-05-9
     97316-50-2 125376-11-6, 2-Chloro-1,3-dimethylimidazolium
     chloride 146374-27-8 357925-36-1 357925-37-2
                                                        357925-43-0
     357926-58-0
                  357926-67-1
                               357926-97-7
                                             357927-02-7
                                                           357927-05-0
                  357927-10-7
                                357927-11-8
                                             357927-49-2
                                                           357927-50-5
     357927-08-3
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (prepn. of imidazoline compds. as antagonists of neuropeptide Y
       receptor)
     125376-11-6, 2-Chloro-1,3-dimethylimidazolium chloride
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (prepn. of imidazoline compds. as antagonists of neuropeptide Y
       receptor)
RN
     125376-11-6 CAPLUS
CN
     1H-Imidazolium, 2-chloro-1,3-dimethyl-, chloride (9CI) (CA INDEX NAME)
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09/905,188

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2003 ACS

AΒ Described is a method for modulating the phenotype of a cell, and particularly, of a target cell in a patient who has or is at risk of developing a disease or condition in which is assocd. with dysregulation of cellular phenotype. The method includes administration of a recombinant nucleic acid mol. encoding a protein having cAMP responsive element-binding (CREB) biol. activity or dominant neg. CREB biol. activity to a patient, in such a manner that the protein is expressed in a target cell of a patient and is sufficient to modulate the phenotype of the target cell. CREB is necessary and sufficient to initiate adipocyte differentiation, based on its constitutive expression in 3T3-L1 fibroblasts prior to the induction of adipogenesis and throughout the differentiation process. Furthermore, both CREB phosphorylation and transcriptional activity are rapidly induced in 3T3-L1 fibroblasts by conventional differentiation-inducing agents, and CREB binds to and stimulates transcription from the promoters of several adipocyte-specific genes. Augmentation of CREB protein expression by adenovrial gene transfer at the time of angioplasty will promoter smooth muscle cell differentiation and thereby decrease post-angioplasty restenosis. Such a method is particularly useful in patients who have, or at risk of developing, diabetes, obesity, macrovascular disease, heart failure, osteoarthritis, and neural diseases and conditions.

ACCESSION NUMBER:

2001:300737 CAPLUS

DOCUMENT NUMBER:

134:321579

TITLE:

Modulation of cell phenotype by transformation with

cAMP responsive element-binding proteins

INVENTOR(S):

Reusch, Jane E.; Klemm, Dwight J.

PATENT ASSIGNEE(S):

University Technology Corporation, USA; National

Jewish Medical and Research Center; U.S. Government as

Represented by the Department of Veterans Affairs

SOURCE: PCT Int. Appl., 155 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE
WO 2001029062 A2 20010426 WO 2000-US28316 20001012

Α3 20010913 WO 2001029062 C2 20020808 WO 2001029062 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG A5 20010430 AU 2001010829 AU 2001-10829 20001012 A 19991018 US 1999-420060 PRIORITY APPLN. INFO.: WO 2000-US28316 W 20001012

IT Hypertension

(pulmonary, CREB effect in vascular smooth muscle on; modulation of cell phenotype by transformation with cAMP responsive element-binding proteins)

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (modulation of cell phenotype by transformation with cAMP responsive element-binding proteins)

IT 169619-96-9, DOTIM

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (modulation of cell phenotype by transformation with cAMP responsive element-binding proteins)

RN 169619-96-9 CAPLUS

CN 1H-Imidazolium, 2-[(8Z)-8-heptadecenyl]-1-(2-hydroxyethyl)-3-[2-[[(9Z)-1-oxo-9-octadecenyl]oxy]ethyl]-, chloride (9CI) (CA INDEX NAME)

Double bond geometry as shown.

$$\begin{array}{c|c} O & & & \\ \hline O & & \\ O & & \\ \hline O & & \\$$

@ c1-

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

L8 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2003 ACS

AB The authors report gene transfer to the normal and injured murine pulmonary circulation via systemic (intravascular) and airway (intratracheal) delivery of novel polycationic liposomes (imidazolium chloride, imidazolinium chloride-cholesterol, and Et phosphocholine). With use of the reporter genes chloramphenicol acetyltransferase (CAT) or human placental alk. phosphatase (hpAP), intravascular injection of

lipid-DNA complexes resulted in gene expression primarily in the lung, with lesser expression in the heart (11% of lung) and spleen (8% of lung). Histochem. staining for the hpAP reporter gene showed localized transgene expression in the microvascular endothelium. Monocrotaline (80 mg/kg body wt s.c.) treatment produced endovascular inflammation and reduced lung CAT activity (2 days postintravascular transfection) by 75.+-.8 and 86.+-.6% at 7 and 21 days, resp., after monocrotaline. Despite the apparent decrease in functional CAT protein, Southern blot anal. suggested maintained plasmid delivery, whereas quant. PCR (TaqMan) showed decreased CAT mRNA levels in monocrotaline mice. In contrast, intratracheal delivery of lipid-DNA complexes showed enhanced CAT expression in monocrotaline mice. Transfection in alternate pulmonary vascular disorders was studied by inducing hypoxic pulmonary hypertension (4 wk at barometric pressure of 410 mmHq). Efficiency and duration of gene transfer, assessed by CAT activity, were similar in pulmonary hypertensive and normal lungs. The authors conclude that imidazolinium-derived polycationic liposomes provide a means of relatively selective and efficient gene transfer to the normal and injured murine microvascular circulation, although translation of transgene mRNA may be reduced by preexisting endothelial injury.

ACCESSION NUMBER: 2000:16851 CAPLUS

DOCUMENT NUMBER: 132:298747

TITLE: Vascular inflammation inhibits gene transfer to the

pulmonary circulation in vivo

AUTHOR(S): Tyler, Robert C.; Fagan, Karen A.; Unfer, Robert C.;

Gorman, Cornelia; McClarrion, Molly; Bullock, Clayton;

Rodman, David M.

CORPORATE SOURCE: Cardiovascular Pulmonary Research Laboratory,

University of Colorado Health Sciences Center, Denver,

CO, 80262, USA

SOURCE: American Journal of Physiology (1999), 277(6, Pt. 1),

L1199-L1204

CODEN: AJPHAP; ISSN: 0002-9513 American Physiological Society

PUBLISHER: American
DOCUMENT TYPE: Journal

DOCUMENT TYPE: Journal LANGUAGE: English

AB . . . complexes showed enhanced CAT expression in monocrotaline mice. Transfection in alternate pulmonary vascular disorders was studied by inducing hypoxic pulmonary hypertension (4 wk at barometric pressure of 410 mmHg). Efficiency and duration of gene transfer, assessed by CAT activity, were similar. . .

IT Blood vessel, disease

Circulation

Hypertension

(pulmonary; imidazolinium-derived polycationic liposomes for i.v. and intratracheal gene transfer to normal and injured murine pulmonary microvascular circulation is inhibited by pulmonary vascular inflammation)

IT 57-88-5, Cholesterol, biological studies 169619-96-9, DOTIM
183283-19-4, EDMPC 264196-93-2

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(imidazolinium-derived polycationic liposomes for i.v. and intratracheal gene transfer to normal and injured murine pulmonary microvascular circulation is inhibited by pulmonary vascular inflammation)

IT 169619-96-9, DOTIM

09/905,188

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(imidazolinium-derived polycationic liposomes for i.v. and intratracheal gene transfer to normal and injured murine pulmonary microvascular circulation is inhibited by pulmonary vascular inflammation)

RN 169619-96-9 CAPLUS

CN 1H-Imidazolium, 2-[(8Z)-8-heptadecenyl]-1-(2-hydroxyethyl)-3-[2-[[(9Z)-1-oxo-9-octadecenyl]oxy]ethyl]-, chloride (9CI) (CA INDEX NAME)

Double bond geometry as shown.

O
$$(CH_2)_{7}$$
 \overline{Z} $(CH_2)_{7}$ Me $(CH_2)_{7}$ Z $(CH_2)_{7}$ Me $(CH_2)_{7}$ Z $(CH_2)_{7}$ Z

🚱 Cl -

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT